

Report on carcinogens lists Styrene as 'reasonably anticipated to be human carcinogen'

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By **Jessica John Bowman**

The 12th *Report on Carcinogens*, released by the U.S. Department of Health and Human Services on June 10, 2011, lists Styrene as a chemical “reasonably anticipated to be a human carcinogen.” The National Toxicology Program, which drafts the report, based its listing on experimental animal studies, limited evidence of carcinogenicity from human studies, and other evidence.

The evidence of carcinogenic effect in humans is based largely on occupational studies in two major industries: the reinforced-plastics industry and the styrene-butadiene rubber industry. In both industries, styrene-exposed workers were found to face an increased risk of leukemia, lymphoma, or all lymphohematopoietic cancers. Although the report recognizes that the evidence associated with workers in the styrene-butadiene rubber industry is limited, due to the associated exposure of such workers to other known carcinogens including butadiene, the report indicates that the finding of increased risk of cancer in the reinforced-plastics industry is much stronger, due to the absence of cross-exposure to other known carcinogens in that industry. Although the report stops short of finding causality, due to the risks associated with confounding from exposure to other chemicals, it nonetheless concludes that “a causal relationship between styrene exposures and cancers in humans is credible.”

In addition to the industrial groups mentioned above, styrene is used in



the production of a number of other goods, including insulation, carpets, paints, polishes, adhesives, packaging, insulation, refrigeration equipment, tanks, pipes, and, increasingly, housewares such as food containers and toys. While workers who manufacture these goods may face a lower exposure rate than workers in other areas, manufacturers should take note of the report's findings and its potential implications for both their workers and their customers. A copy of the report may be found [here](#).

The impact of the report's classification of styrene will likely be substantial, and styrene industry groups are expected to take legal action to block or revoke the listing.

LINKS

- [Jessica John Bowman's bio](#)
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